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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,088	12/19/2001	Mitsugu Kamizuru	35.C16071	8751
5514	7590	09/29/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			TAWFIK, SAMEH	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/021,088	KAMIZURU ET AL.	
	Examiner	Art Unit	
	Sameh H. Tawfik	3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

This application contains claims 11 and 13-20 drawn to an invention nonelected with traverse in Paper No. 03282005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitai (4,781,667).

Kitai discloses a sheet folding apparatus for folding a sheet by nipping the sheet taking a predetermined position in a convey direction as a fold and conveying the sheet by means of a pair of folding rollers (Fig. 1), wherein at least a pair of folding rollers (Figs. 1; via rollers 82) has a single larger diameter portion (Fig. 1, via 82); provided within a convey range in a sheet width direction of a minimum size sheet foldable in the sheet folding apparatus and small diameter portions at both sides of the large diameter portion (Figs. 1 and 4, via portion 81), the small diameter portions each have a circular cross-sectional shape with a radius substantially the same in all directions (Fig. 1; via the small diameter 81 in a circular cross-sectional shape with a radius substantially the same in all directions), and wherein a gap formed at the small-diameter

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portions between the pair of folding rollers is smaller than or equal to a thickness of the sheet as folded, see for example (Figs. 1, 3, and 4).

Regarding claim 2: wherein the large diameter portion is provided at a sheet convey center portion of the roller (Fig. 1; via 81).

Regarding claim 3: wherein a width of the single large diameter portion in the axis direction is substantially $\frac{1}{2}$ of a minimum width of a sheet size folded in the sheet folding apparatus (Fig. 4).

Regarding claim 4: wherein another single large diameter portion of the roller is provided outside a width of a maximum size sheet foldable in the folding apparatus (Fig. 4; via the large diameter between portion 81).

Regarding claim 9: wherein the single large diameter portion has a taper section (Figs. 1 and 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitai (4,781,667) in view of Branecky et al. (5,180,151).

Kitai does not disclose that the predetermined gap formed between the pair of folding rollers is set smaller than a thickness of three sheets conveyed. However, Branecky discloses a similar sheet folding apparatus comprising that the predetermined gap formed between the pair

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of folding rollers is set smaller than a thickness of three sheets conveyed (Figs. 2 and 3; column 1, lines 19-26).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Kitai's sheet folding apparatus by having the predetermined gap formed between the pair of folding rollers is set smaller than a thickness of three layers or sheets conveyed, as suggested by Branecky, in order to be able of folding more than one layer of sheet and increase the thickness of the sheet and strengthen the sheet by having more layers.

Regarding claim 10: Kitai discloses that the single large diameter portion has a taper section (Figs. 1 and 4).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitai (4,781,667).

Kitai does not disclose that the pair of folding rollers comprises elastic members. However, the examiner takes an official notice that such elastic folding rollers is old, well known, and available in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted Kitai's folding rollers with elastic folding rollers, for example rollers made of plastic materials, in order to soft with touching and folding the sheets and avoid any trimming or scratching the sheets.

Response to Arguments

Applicant's arguments filed 08/10/2005 have been fully considered but they are not persuasive.

Applicants argue in page 6 of the arguments that the cutout as illustrated by member 81 in Kitai corresponds in any way to the pair of small diameter portions 464 in the present

application. The examiner believes as set forth on the action that Kitai discloses the claimed small diameter as shown in Fig. 1, via 81. The examiner believes that applicant trying to refer to the small diameter as described on the disclosure of the filed application, but the examiner only give weight to the claimed language for the examining purpose, regardless to the disclosure.

Applicants further argue in page 7 of the filed arguments that claim one has been amended to further point out to the small diameter portion in a manner which expressly excludes coverage of a cutout as depicted in Kitai. Kitai, does not disclose the cutout 81 with a circular cross-sectional shape with a radius substantially the same in all directions. The examiner as set forth on the action believes that Kitai still discloses the amended claim one, as shown in Fig. 1 the cutout 81 still shown on circular cross-section and the radius is substantially the same in all direction. Note that the word “substantially” on the claim make the limitation following the word indefinite and not positively cited on the claim language.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

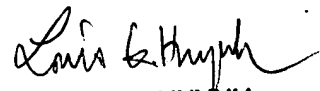
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameh H. Tawfik whose telephone number is 571-272-4470.

The examiner can normally be reached on Tuesday - Friday from 8:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST.


LOUIS K. HUYNH
PRIMARY EXAMINER